Applicant: Michael A. Apicella et al. Attorney's Docket No.: 17023.031US1 / 01025

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IN THE SPECIFICATION

At page 27, line 25 through page 28 line 12, please amend the paragraph as follows:

--Software for performing BLAST analyses is publicly available through the National Center for Biotechnology Information on the World Wide Web (cnbi.nlm.nih.gov/) (http://www.nebi.nlm.nih.gov/). This algorithm involves first identifying high scoring sequence pairs (HSPs) by identifying short words of length W in the query sequence, which either match or satisfy some positive-valued threshold score T when aligned with a word of the same length in a database sequence. T is referred to as the neighborhood word score threshold. These initial neighborhood word hits act as seeds for initiating searches to find longer HSPs containing them. The word hits are then extended in both directions along each sequence for as far as the cumulative alignment score can be increased. Cumulative scores are calculated using, for nucleotide sequences, the parameters M (reward score for a pair of matching residues; always > 0) and N (penalty score for mismatching residues; always < 0). For amino acid sequences, a scoring matrix is used to calculate the cumulative score. Extension of the word hits in each direction are halted when the cumulative alignment score falls off by the quantity X from its maximum achieved value, the cumulative score goes to zero or below due to the accumulation of one or more negative-scoring residue alignments, or the end of either sequence is reached.--

At page 28, line 22 through page 29 line 5, please amend the paragraph as follows:

--To obtain gapped alignments for comparison purposes, Gapped BLAST (in BLAST
2.0) can be utilized as described in Altschul et al., Nucleic Acids Res. 25:3389 (1997).

Alternatively, PSI-BLAST (in BLAST 2.0) can be used to perform an iterated search that detects distant relationships between molecules. See Altschul et al., supra. When utilizing BLAST,
Gapped BLAST, PSI-BLAST, the default parameters of the respective programs (e.g. BLASTN for nucleotide sequences, BLASTX for proteins) can be used. The BLASTN program (for nucleotide sequences) uses as defaults a wordlength (W) of 11, an expectation (E) of 10, a cutoff of 100, M=5, N=-4, and a comparison of both strands. For amino acid sequences, the BLASTP program uses as defaults a wordlength (W) of 3, an expectation (E) of 10, and the BLOSUM62 scoring matrix. See the World Wide Web (cnbi.nlm.nih.gov) http://www.ncbi.nlm.nih.gov.

Alignment may also be performed manually by inspection.--